

SEQUENCE LISTING

<110> Eisenberg, Stephen P.
Case, Casey C.
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Jamieson, Andrew
Rebar, Edward J.
Sangamo Biosciences, Inc.

<120> Selection of Sites for Targeting by Zinc Finger
Proteins and Methods of Designing Zinc Finger Proteins
to Bind to Preselected Sites

<130> 019496-001800US

<140> US 09/229,007

<141> 1999-01-12

<160> 97

<170> PatentIn Ver. 2.1

<210> 1

<211> 25

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence:exemplary motif
characterizing the C-2H-2 class of zinc finger
proteins (ZFP)

<220>

<221> MOD_RES

<222> (1)..(25)

<223> Xaa = any amino acid

<220>

<221> MOD_RES

<222> (4)..(5)

<223> Xaa = any amino acid, may be present or absent

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<222> (23)..(24)

<223> Xaa = any amino acid, may be present or absent

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1 5 10 15
Xaa Xaa His Xaa Xaa Xaa Xaa Xaa His
20 25

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<211> 5

<212> PRT

<213> Artificial Sequence

<220>
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<400> 2
 Thr Gly Glu Lys Pro
 1 5

<210> 3
 <211> 5
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<220>
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<400> 3
 Gly Gly Gly Gly Ser
 1 5

<210> 4
 <211> 8
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<400> 4
 Gly Gly Arg Arg Gly Gly Gly Ser
 1 5

<210> 5
 <211> 9
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<220>
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<400> 5
 Leu Arg Gln Arg Asp Gly Glu Arg Pro
 1 5

<210> 6
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<220>
 <223> Description of Artificial Sequence:peptide linker

<400> 6
 Leu Arg Gln Lys Asp Gly Gly Gly Ser Glu Arg Pro
 1 5 10

<210> 7
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:peptide linker

<400> 7
 Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro
 1 5 10 15

<210> 8
 <211> 85
 <212> PRT
 <213> Mus sp.

<220>
 <223> DNA binding domain of mouse transcription factor
 Zif268

<400> 8
 Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Arg Ser Asp
 1 5 10 15

 Glu Leu Thr Arg His Ile Arg Ile His Thr Gly Gln Lys Pro Phe Gln
 20 25 30

 Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp His Leu Thr Thr
 35 40 45

 His Ile Arg Thr His Thr Gly Glu Lys Pro Phe Ala Cys Asp Ile Cys
 50 55 60

 Gly Arg Lys Phe Ala Arg Ser Asp Glu Arg Lys Arg His Thr Lys Ile
 65 70 75 80

 His Leu Arg Gln Lys
 85

<210> 9
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<220>
 <223> Description of Artificial Sequence:amino acids
 531-624 in Sp-1 transcription factor

<400> 9
 Pro Gly Lys Lys Lys Gln His Ile Cys His Ile Gln Gly Cys Gly Lys
 1 5 10 15

 Val Tyr Gly Lys Thr Ser His Leu Arg Ala His Leu Arg Trp His Thr
 20 25 30

 Gly Glu Arg Pro Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg Phe
 35 40 45

Thr Arg Ser Asp Glu Leu Gln Arg His Lys Arg Thr His Thr Gly Glu
50 55 60

Lys Lys Phe Ala Cys Pro Glu Cys Pro Lys Arg Phe Met Arg Ser Asp
65 70 75 80

His Leu Ser Lys His Ile Lys Thr His Gln Asn Lys Lys Gly
85 90

<210> 10

<211> 98

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<223> Description of Artificial Sequence:Sp-1
transcription factor consensus sequence

<400> 10

Met Glu Lys Leu Arg Asn Gly Ser Gly Asp Pro Gly Lys Lys Lys Gln
1 5 10 15

His Ala Cys Pro Glu Cys Gly Lys Ser Phe Ser Lys Ser Ser His Leu
20 25 30

Arg Ala His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Lys Cys Pro
35 40 45

Glu Cys Gly Lys Ser Phe Ser Arg Ser Asp Glu Leu Gln Arg His Gln
50 55 60

Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Pro Glu Cys Gly Lys
65 70 75 80

Ser Phe Ser Arg Ser Asp His Leu Ser Lys His Gln Arg Thr His Gln
85 90 95

Asn Lys

<210> 11

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:natural Zif268
binding site

<400> 11

gcgtgggcgc

10

<210> 12

<211> 10

<212> DNA

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site
 containing three D-able subsites

 <400> 12
 ggntgngggnn 10

 <210> 13
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:target site
 with two overlapping D-able subsites

 <400> 13
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 <210> 14
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:target site
 with three overlapping D-able subsites

 <400> 14
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 <210> 15
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
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 motif searched by protocol 1

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 <223> n = g, a, c or t

 <220>
 <221> modified_base
 <222> (10)..(12)
 <223> n = g, a, c or t, may be present or absent

 <400> 15
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 <210> 16
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 <213> Artificial Sequence

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 motif searched by protocol 1

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 <223> n = g, a, c or t

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 <223> n = g, a, c or t, may be present or absent

<400> 16
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<210> 17
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 motif searched by protocol 1

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<400> 17
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<210> 18
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<400> 18
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<210> 19
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motif searched by protocol 1

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<400> 19
gnggnngnnn nngngngnng gg

22

<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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motif searched by protocol 1

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<400> 20
gnggnngnnn nnnngngng ngg

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<210> 21
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motif searched by protocol 1

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<400> 21
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<210> 22
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<400> 22
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23

<210> 23
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<400> 23
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<210> 24
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<400> 24
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23

<210> 25
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<400> 25
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<210> 26
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<220>
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 <223> n = g, a, c or t, may be present or absent

<400> 26
 gnnngnggnnn nnnngnggnng ngg

23

<210> 27
 <211> 23
 <212> DNA
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<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 1

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<220>
 <221> modified_base
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<400> 27
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23

<210> 28
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 <212> DNA
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<220>
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 motif searched by protocol 1

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<220>
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<400> 28
 gnnngnnnggg nnnngnggnn gnnn

24

<210> 29
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 <212> DNA
 <213> Artificial Sequence

<220>
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 motif searched by protocol 1

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<220>
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<400> 29
 gnnngnnnggg nnnngnnnggg nnn

23

<210> 30
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 <212> DNA
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<220>
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 motif searched by protocol 1

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<220>
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<400> 30
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24

<210> 31
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<400> 31
gnngnngngg nnnngnggng ngg

23

<210> 32
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motif searched by protocol 1

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<210> 33
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motif searched by protocol 1

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<210> 34
<211> 19
<212> DNA
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<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 1

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<210> 35
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 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 1

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<221> modified_base

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<223> n = g, a, c or t

<400> 35

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19

<210> 36

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

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<223> n = g, a, c or t

<220>

<221> modified_base

<222> (10)..(12)

<223> n = g, a, c or t, may be present or absent

<400> 36

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22

<210> 37

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

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<223> n = g, a, c or t

<220>

<221> modified_base

<222> (11)..(13)

<223> n = g, a, c or t, may be present or absent

<400> 37
knggnnknnn nnnknggnnk nnn

23

<210> 38
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 2

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<223> n = g, a, c or t

<220>
<221> modified_base
<222> (10)..(12)
<223> n = g, a, c or t, may be present or absent

<400> 38
knggnnknnn nnknknnggn nn

22

<210> 39
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 2

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<221> modified_base
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<223> n = g, a, c or t

<220>
<221> modified_base
<222> (11)..(13)
<223> n = g, a, c or t, may be present or absent

<400> 39
knggnnknnn nnknknngg nnn

23

<210> 40
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 2

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<220>
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 <223> n = g, a, c or t, may be present or absent

<400> 40
 knnggnnknnn nnknnknnkn gg

22

<210> 41
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

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<220>
 <221> modified_base
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 <223> n = g, a, c or t, may be present or absent

<400> 41
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23

<210> 42
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

<220>
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 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (10)..(12)
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<400> 42
 knnknggnnn nnknggnnkn nn

22

<210> 43
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

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<220>
 <221> modified_base
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 <223> n = g, a, c or t, may be present or absent

<400> 43
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23

<210> 44
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

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<220>
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 <223> n = g, a, c or t, may be present or absent

<400> 44
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22

<210> 45
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

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 <223> n = g, a, c or t

<400> 45
knnknqgnnn nnnknnknqg nnn

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<210> 46
<211> 22
<212> DNA
<213> Artificial Sequence
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<220>
<221> modified_base
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<223> n = q, a, c or t
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<222> (10)..(12)
<223> n = q, a, c or t, may be present or absent
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<400> 46
knnknqgnnn nnknnknknkn gg

22

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<210> 47
<211> 23
<212> DNA
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:target site DNA
      motif searched by protocol 2
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<220>
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<400> 47
knnknggnnn nnnknnknnk ngg

23

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<210> 48
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<220>
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 motif searched by protocol 2

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 <223> n = g, a, c or t

<220>
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 <222> (11)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 48
 knnknnknngg nnknnggnkn nn

22

<210> 49
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 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

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 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (12)..(13)
 <223> n = g, a, c or t, may be present or absent

<400> 49
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23

<210> 50
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<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

<220>
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 <223> n = g, a, c or t

<220>
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 <222> (11)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 50
knnknnkngg nnknnknggn nn

22

<210> 51
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 2

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<223> n = g, a, c or t

<220>
<221> modified_base
<222> (12)..(13)
<223> n = g, a, c or t, may be present or absent

<400> 51
knnknnkngg nnnknnkngg nnn

23

<210> 52
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
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motif searched by protocol 2

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<223> n = g, a, c or t

<220>
<221> modified_base
<222> (11)..(12)
<223> n = g, a, c or t, may be present or absent

<400> 52
knnknnkngg nnknnknnkn gg

22

<210> 53
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 2

<220>
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 <222> (12)..(13)
 <223> n = g, a, c or t, may be present or absent

<400> 53
 knnknnknngg nnnknnknnk ngg

23

<210> 54
 <211> 19
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<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

<220>
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 <223> n = g, a, c or t

<400> 54
 knnknnknngg nggnnknnn

19

<210> 55
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<220>
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 motif searched by protocol 2

<220>
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<400> 55
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19

<210> 56
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 2

<400> 56
knnknnkngg nnknnkngg

19

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<220>
<223> Description of Artificial Sequence:target site DNA
      motif searched by protocol 3
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<220>
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<223> n = g, a, c or t, may be present or absent

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<400> 57
kngknnknnn nnknqknnkn nn

22

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<210> 58
<211> 23
<212> DNA
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence:target site DNA motif searched by protocol 3

```
<220>
<221> modified_base
<222> (1)..(23)
<223> n = g, a, c or t
```

```

<220>
<221> modified_base
<222> (11)..(13)
<223> n = g, a, c or t, may be present or absent

```

```
<400> 58
kngknnknnn nnnkngknnk nnn
```

23

```
<210> 59
<211> 22
<212> DNA
<213> Artificial Sequence
```

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(22)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (10)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 59
 kngknnknnn nnknnkngkn nn

22

<210> 60
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(23)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (11)..(13)
 <223> n = g, a, c or t, may be present or absent

<400> 60
 kngknnknnn nnnknnkngk nnn

23

<210> 61
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(22)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (10)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 61
kngknnknnn nnknnknnkn gk

22

<210> 62
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 3

<220>
<221> modified_base
<222> (1)..(23)
<223> n = g, a, c or t

<220>
<221> modified_base
<222> (11)..(13)
<223> n = g, a, c or t, may be present or absent

<400> 62
kngknnknnn nnnknnknnk ngk

23

<210> 63
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 3

<220>
<221> modified_base
<222> (1)..(22)
<223> n = g, a, c or t

<220>
<221> modified_base
<222> (10)..(12)
<223> n = g, a, c or t, may be present or absent

<400> 63
knnkngknnn nnkngknnkn nn

22

<210> 64
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(23)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (11)..(13)
 <223> n = g, a, c or t, may be present or absent

<400> 64
 knnkngknnnn nnnkngknnk nnn

23

<210> 65
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(22)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (10)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 65
 knnkngknnnn nnknknkngkn nn

22

<210> 66
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(23)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (11)..(13)
 <223> n = g, a, c or t, may be present or absent

<400> 66
 knnkngknnnn nnnknknkngk nnn

23

<210> 67
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>

<221> modified_base

<222> (1)..(22)

<223> n = g, a, c or t

<220>

<221> modified_base

<222> (10)..(12)

<223> n = g, a, c or t, may be present or absent

<400> 67

knnkngknnn nnknnknnkn gk

22

<210> 68

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>

<221> modified_base

<222> (1)..(23)

<223> n = g, a, c or t

<220>

<221> modified_base

<222> (11)..(13)

<223> n = g, a, c or t, may be present or absent

<400> 68

knnkngknnn nnnknnknnk ngk

23

<210> 69

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>

<221> modified_base

<222> (1)..(22)

<223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (11)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 69
 knnknknkngk nnknkgknnkn nn

22

<210> 70
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(23)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (12)..(13)
 <223> n = g, a, c or t, may be present or absent

<400> 70
 knnknknkngk nnnknkgknnk nnn

23

<210> 71
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(22)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (11)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 71
 knnknknkngk nnknknkngkn nn

22

<210> 72
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(23)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (12)..(13)
 <223> n = g, a, c or t, may be present or absent

<400> 72
 knnknnkngk nnnknnkngk nnn

23

<210> 73
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(22)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (11)..(12)
 <223> n = g, a, c or t, may be present or absent

<400> 73
 knnknnkngk nnknnknnkn gk

22

<210> 74
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site DNA
 motif searched by protocol 3

<220>
 <221> modified_base
 <222> (1)..(23)
 <223> n = g, a, c or t

<220>
 <221> modified_base
 <222> (12)..(13)
 <223> n = g, a, c or t, may be present or absent

23

```
<220>
<223> Description of Artificial Sequence:target site DNA
      motif searched by protocol 3
```

19

<220>
<223> Description of Artificial Sequence:target site DNA
motif searched by protocol 3

19

```
<220>
<223> Description of Artificial Sequence:target site DNA
      motif searched by protocol 3
```

19

<210> 78
 <211> 10
 <212> DNA
 <213> Glycine max

<220>
 <223> soybean FAD2-1 cDNA ZFP target segment FAD 1

<400> 78
 gaggttagagg 10

<210> 79
 <211> 10
 <212> DNA
 <213> Glycine max

<220>
 <223> soybean FAD2-1 cDNA target segment FAD 2

<400> 79
 gtcgtgtgga 10

<210> 80
 <211> 10
 <212> DNA
 <213> Glycine max

<220>
 <223> soybean FAD2-1 cDNA target segment FAD 3

<400> 80
 gttgaggaag 10

<210> 81
 <211> 10
 <212> DNA
 <213> Glycine max

<220>
 <223> soybean FAD2-1 cDNA target segment FAD 4

<400> 81
 gaggtggaag 10

<210> 82
 <211> 10
 <212> DNA
 <213> Glycine max

<220>
 <223> soybean FAD2-1 cDNA target segment FAD 5

<400> 82
 taggtggtga 10

<210> 83
 <211> 12
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:test sequence

<400> 83
 agtgcgcggt gc 12

<210> 84
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site
 with base immediately to the 3' side of target
 site

<400> 84
 agtgcgcggt 10

<210> 85
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site
 with base immediately to the 3' side of target
 site

<400> 85
 gtgcgcggtg 10

<210> 86
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target site
 with base immediately to the 3' side of target
 site

<400> 86
 tgcgcggtgc 10

<210> 87
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<400> 87
gcgcggtgcn

```
<210> 88
<211> 7
<212> PRT
<213> Artificial Sequence
```

<400> 88
Glu Arg Asp His Leu Arg Thr
1 5

```
<210> 89
<211> 7
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Description of Artificial Sequence: finger F2 for
ordered output from optimal design target site
```

```
<400> 89
Arg Ser Asp Glu Leu Gln Arg
  1                      5
```

```
<210> 90
<211> 7
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Description of Artificial Sequence: finger F1 for
ordered output from optimal design target site
```

```
<400> 90
Arg Lys Asp Ser Leu Val Arg
  1                      5
```

```
<210> 91
<211> 7
<212> PRT
<213> Artificial Sequence
```

<220>

<223> Description of Artificial Sequence: finger for
disordered output from optimal design target site

<400> 91

Arg Ser Asp Glu Leu Thr Arg
1 5

<210> 92

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: finger for
disordered output from optimal design target site

<400> 92

Arg Ser Asp Glu Arg Lys Arg
1 5

<210> 93

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: three finger
ZFP design using F3, F2 and F1 fingers for ordered
output from optimal design target site

<400> 93

Arg Lys Asp Ser Leu Val Arg Arg Ser Asp Glu Leu Gln Arg Glu Arg
1 5 10 15

Asp His Leu Arg Thr
20

<210> 94

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ZFP sequence
(F1, F2 and F3) from SBS design GR-223

<400> 94

Arg Ser Ala Asp Leu Thr Arg Arg Ser Asp His Leu Thr Arg Glu Arg
1 5 10 15

Asp His Leu Arg Thr
20

<210> 95
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:ZFP sequence
 (F1, F2 and F3) from Zif 268

<400> 95
 Arg Ser Asp Glu Leu Thr Arg Arg Ser Asp His Leu Thr Thr Arg Ser
 1 5 10 15
 Asp Glu Arg Lys Arg
 20

<210> 96
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:ZFP sequence
 (F1, F2, F3) from SP1

<400> 96
 Lys Thr Ser His Leu Arg Ala Arg Ser Asp Glu Leu Gln Arg Arg Ser
 1 5 10 15
 Asp His Leu Ser Lys
 20

<210> 97
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:ZFP sequence
 (F1, F2, F3) from SBS design GL-8.3.1

<400> 97
 Arg Lys Asp Ser Leu Val Arg Thr Ser Asp His Leu Ala Ser Arg Ser
 1 5 10 15
 Asp Asn Leu Thr Arg
 20